MONTANA
Department of Transportation

2021

MicroStation / Power GEOPAK V8i (SELECTseries 10) Enhanced File Types and Referencing Relationships

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OVERVIEW

This is an overview of MDT Enhanced files and their referencing relationships supported by the MDT Enhanced OpenRoads workspace.

REFERENCES

PCMS Document Naming Standards

FILE TYPE OVERVIEW

FILE TYPES

A variety of files are developed during the life of a project to achieve a complete plans deliverable. Following is a summary of the common dgn file types and intended contents of each. MDT's PCMS Document Naming Standards includes a listing of additional project file types and detail on MDT file naming standards.

MDT's common standard design, modeling and survey project file types are listed in the table below:

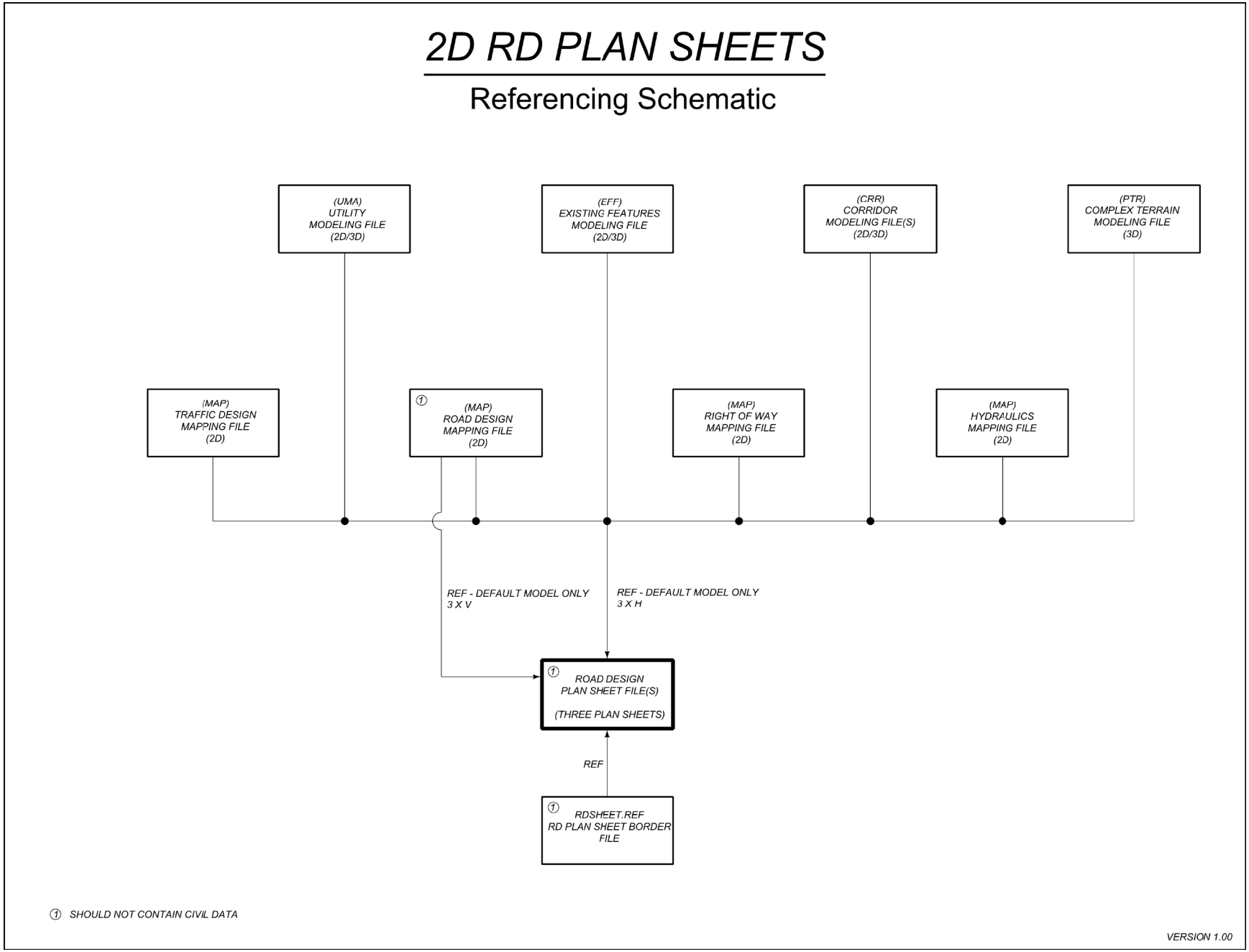
File Class	File Class Description	File Contents
ETR	Existing Terrain Model	Imported Survey .TIN File(s)
EFF	Existing Features File	Survey/Photogrammetry linework (copied and featurized)
UMA	Utilities Mapping	All existing and proposed utilities modeled in 3D
ALN	Horizontal Alignment/Vertical Profile	All civil alignments and associated profiles. Profiles are dynamic only.
CRR	Corridor File	3D Models
SUP	Superelevation	Calculated superelevations
PTR	Proposed Terrain Model	Proposed surface based on break lines from the corridor file(s)
MAP	2D Strip Map File	All COGO visualization of alignments and profiles, line work for edge of pavement, sidewalk, curb, etc.
MAP	PH/DI (District) Map File	Surveyed existing features
CMA	3d Contour Map File	For criteria only
ARE	Area File	Area shapes for acquisition calculations
SUE	Utilities SUE Survey	Surveyed utility locations
WSU	Wetland Survey	Surveyed wetland boundaries and hatching
XSF	Cross Section File	Cross sections and annotations

MDT's common standard sheet project file types are listed in the table below:

File Class	File Class Description
DET	Detail Sheet
ERO	Erosion Control Plan
ERT	Erosion Control Title Sheet
EXH	Exhibit Sheet
LAY	Cross Section Layout File
OWN	Ownership Sheet
PLN	Plan Sheet
PLP	Plan & Profile Sheet
PVP	Pavement Preservation Plan
SDC	Sign Design Calculation Sheet
SUM	Summary Sheet
TRV	Traverse Sheet
TTL	Title Sheet
TYP	Typical Section Sheet

FILE REFERENCING RELATIONSHIPS

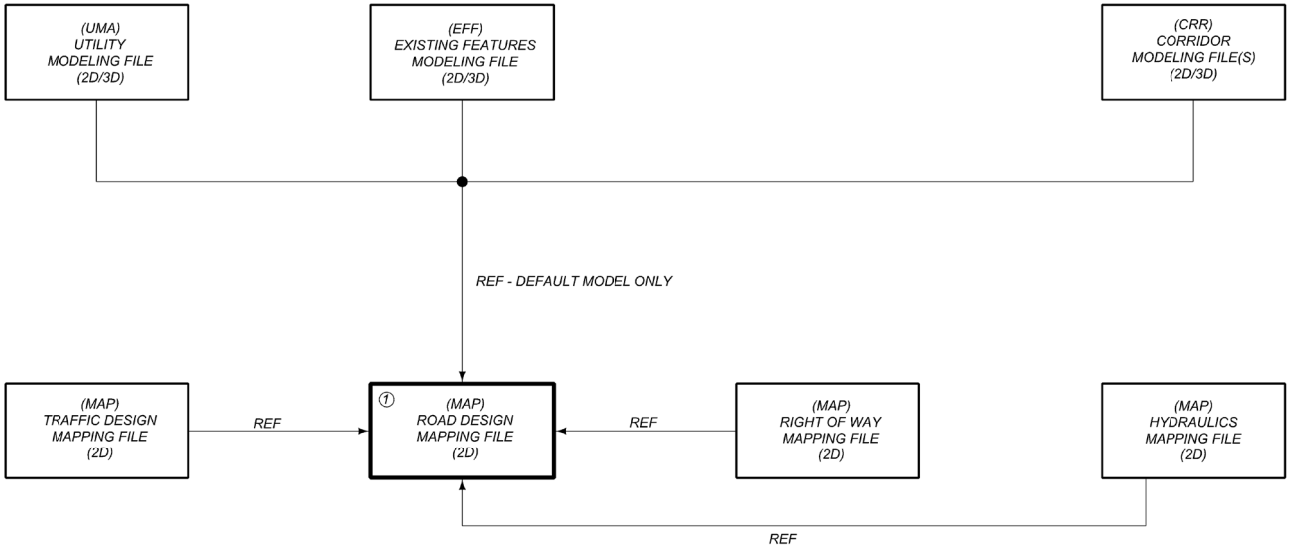
The following schematics show referencing relationships of MDT design files. These referencing relationships allow for successful application of procedures, the enhanced workspace and ancillary tools supported at MDT.


2D RD PLAN SHEETS
Referencing Schematic
(UMA)
UTILITY
MODELING FILE
(2D/3D)
(EFF)
EXISTING FEATURES
MODELING FILE
(2D/3D)
(CRR)
CORRIDOR
MODELING FILE(S)
(2D/3D)
(PTR)
COMPLEX TERRAIN
MODELING FILE
(3D)
(MAP)
TRAFFIC DESIGN
MAPPING FILE
(2D)
1
(MAP)
ROAD DESIGN
MAPPING FILE
(2D)
(MAP)
RIGHT OF WAY
MAPPING FILE
(2D)
(MAP)
HYDRAULICS
MAPPING FILE
(2D)
REF - DEFAULT MODEL ONLY
3 X V
REF - DEFAULT MODEL ONLY
3 X H
1
ROAD DESIGN
PLAN SHEET FILE(S)
(THREE PLAN SHEETS)
REF
1
RDSHEET.REF
RD PLAN SHEET BORDER
FILE
1 SHOULD NOT CONTAIN CIVIL DATA
VERSION 1.00

2D ROAD DESIGN MAPPING FILES

2D RD MAPPING FILE

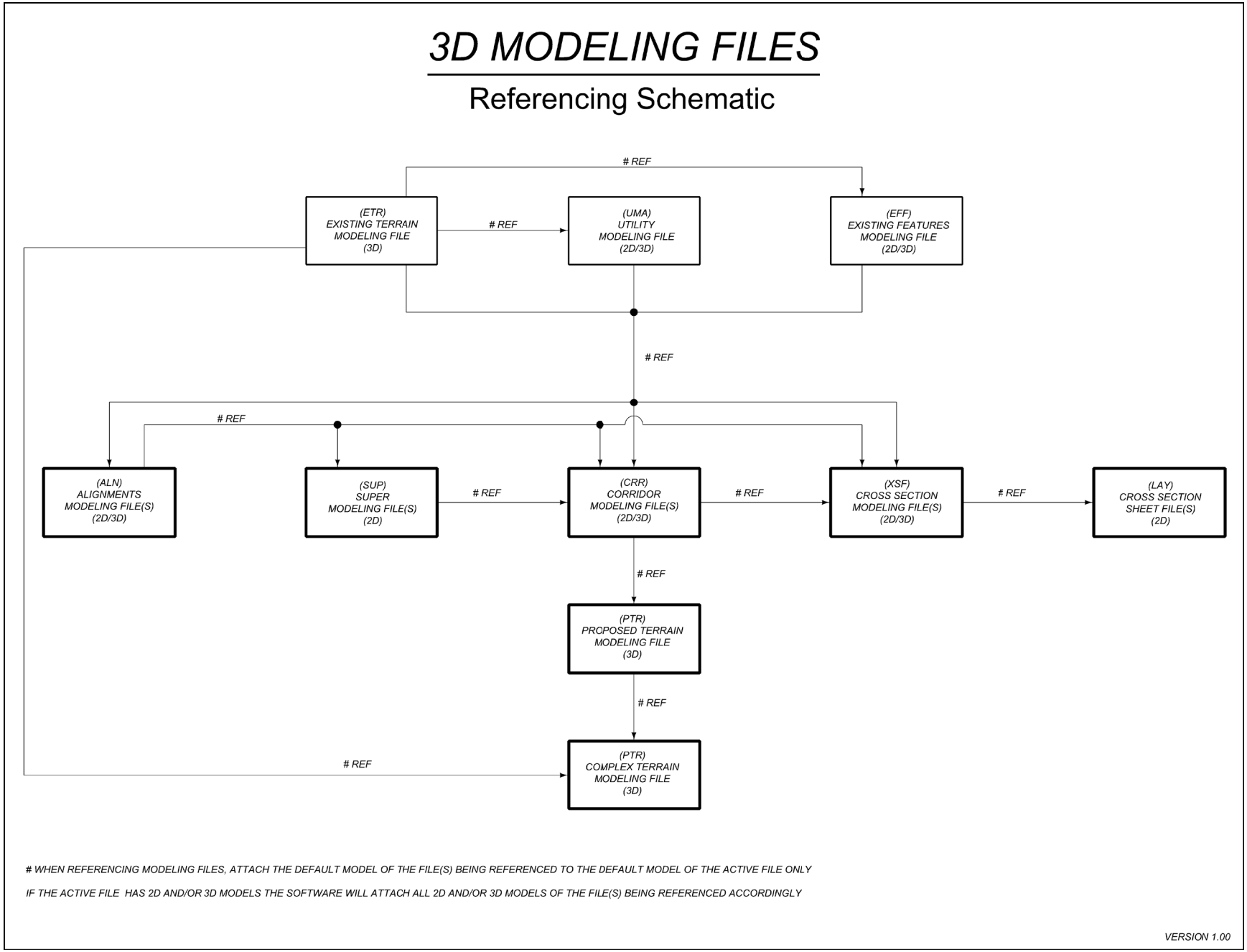
Referencing Schematic



1 SHOULD NOT CONTAIN CIVIL DATA
SHOULD NOT CONTAIN A 3D MODEL

VERSION 1.00

3D MODELING FILES



SURVEY WITH TIN FILES